

IN THE CLAIMS

1. (Previously presented) Apparatus for predicting the outcome of a conditional branch within a computer system, the apparatus comprising means for identifying the occurrence of a conditional branch, means for obtaining data providing a measure of system activity since a previous branch, means for comparing said data with data relating to previous system activity, and means for predicting the branch outcome based on such comparison.
2. (Previously presented) Apparatus according to claim 1, wherein the data relating to system activity comprises average system activity.
3. (Previously presented) Apparatus according to claim 1, wherein an activity history table is provided in which is stored data relating to previous system activity and the branch outcome to which such activity corresponded.
4. (Previously presented) Apparatus according to claim 3, comprising means for, when a conditional branch is encountered, retrieving data relating the system activity between the current and previous branches, and means for comparing this data with the data contained in the activity history table, wherein said means for predicting the branch outcome selects the branch outcome which has associated therewith activity data which most closely resembles the current retrieved activity data.
5. (Previously presented) Apparatus according to claim 4, wherein the activity history table updated with latest activity data and the selected branch outcome.

6. (Currently amended) Apparatus according to claim 1, including means for predicting the outcome of a conditional branch using outcome history of that ~~and/or previous branches~~ branch.

7. (Currently amended) Apparatus according to claim 6, wherein data relating to the activity of the system is only used for branch outcome prediction if confidence of accuracy of branch outcome prediction using branch history is relatively low.

8. (Previously presented) A method for predicting the outcome of a conditional branch within a computer system, the method comprising the steps of identifying the occurrence of a conditional branch. obtaining data providing a measure of system activity since a previous branch, comparing said data with data relating to previous system activity, and predicting the branch outcome based on such comparison.